ASOS MODIFICATION NOTE 80 (for Electronics Technicians)
Maintenance, Logistics and Acquisition Division
W/OPS12: AL

SUBJECT : FIRMWARE upgrade for the Automated Surface Observing System (ASOS) Acquisition Control Unit (ACU) processor board (S100-1A2A1-3) at Single Cabinet ASOS (SCA).

PURPOSE : Instructions for upgrading the FIRMWARE on the ASOS ACU (AACU) processor board at SCA Sites to version 2.7B-6 using CD ROM..

EQUIPMENT AFFECTED : ASOS SCA (ASCA)

PARTS REQUIRED : Current Version of AACU FIRMWARE (ASN: S100-SW2.7B-6)
Solar Winds 2000 Standard Edition (TFTP Software)
Ethernet cable, RJ-45 to RJ-45 CAT 5 patch crossover (ASN: S100-TE310)
*Software, ProComm Version 4.7 (ASN: S100-TE318-2)
*Serial RS-232 cable, DB-9 to RJ-45 (ASN: S100-TE311)

SPECIAL TOOLS REQUIRED : Laptop computer with:
CD-ROM
Ethernet port

MODIFICATION PROCUREMENT : The parts required will be issued to each site by W/OPS12 from the National Logistics Support Center under the applicable approved site-specific Request for Change.

EFFECTIVITY : SCA Sites With Modification Note 73 Installed

SID	WFO	WFO Location	Location	State	OrgCode
CZZ	SGX	San Diego	Campo	CA	WT9918
GNA	DLH	Duluth	Grand Marais	MN	WR9745
JDN	GGW	Glasgrow	Jordan	MT	WT9768
MTP	OKX	Upton	Montauk	NY	WN9912
P58	DTX	White Lake	Harbor Beach	MI	WR9954
P59	MQT	Neguanee	Copper Harbor	MI	WR9743
P68	LKN	Elko	Eureka	NV	WT9903
P69	MSO	Missoula	Lowell	ID	WT9773
P75	MQT	Neguanee	Seul Choix Point	MI	WR9743
P92	LCH	Lake Charles	Salt Point	LA	WP9240
SNT	PIH	Pocatello	Stanley	ID	WT9578

ESTIMATED TIME REQUIRED	: 1 Hour
EFFECT ON OTHER INSTRUCTIONS	: None.
AUTHORIZATION	: This modification is authorized by Engineering Change Proposal **S01141**.
VERIFICATION STATEMENT	: This modification has been tested for operational integrity and verified at the National Weather Service (NWS) Headquarters, Silver Spring, Maryland (SP2).
SPECIAL INSTRUCTIONS	: Refer to Modification Note 73 Revision C: 1) Page 7, Part 1- Step 3 for proper fuse installation; 2) Page 13, Part 6 for shipping instructions, if required. Return all unused boards.

GENERAL:
This modification note provides an outline of the steps needed to upload the ASOS system FIRMWARE to the new ASCA processor from a laptop computer.

NOTE: This modification note is a FIRMWARE change to the ASCA processor board. See Modification Note 73 for hardware installation procedures.

NOTE: Laptop computers older than five years or running an operating system earlier than Microsoft Windows 98 may not function properly under this procedure. It may be necessary to consult the local ESA to properly configure the laptop computer or to certify that newer hardware is required. It is strongly recommended that this procedure have been successfully executed at a local site prior to attempting installation at a site requiring travel.

The ASCA processor and memory board is a power-PC based VMEbus Single Board Computer (SBC) that has been qualified for the High Temperature Environment of the ASCA. This SBC runs at 300 MHz, boasts 1 MB of L2 backside cache, 128 KB of non-volatile random access memery (NVRAM), and contains 8 MB of user flash memory (into which the ASOS FIRMWARE code will be installed using this procedure). Additional processing power is provided by a daughtercard with 256 MB of SDRAM and a lower extension card with an additional 8 MB of NVRAM with battery-backup.

PART 1 – PREPARATORY LAPTOP COMPUTER CONFIGURATION

NOTE: The ASOS standard terminal interface software, ProComm Version 4.7, must be installed on the laptop computer. For installing Procomm Plus 4.7 under Microsoft Windows 2000 and Windows XP see MAINTENANCE NOTE 52 (Installing Procomm Plus 4.7 under Windows 2000/XP)

The configuration procedure should be completed prior to dispatch to an ASOS Site. PART 1 - PREPARATORY LAPTOP COMPUTER CONFIGURATION need only be completed once. **Continue to PART 2 if the laptop computer is configured according to this procedure.**

1. Power on the laptop computer and insert the ASOS CD containing the FIRMWARE and associated software into the appropriate CD-ROM drive.

NOTE: This procedure requires the laptop computer to have an Ethernet port. Appendix A provides an example procedure for configuring the Internet Protocol properties and address identification required for the ProComm script file to interface with the Solar Winds 2000 Standard Edition Program and upload the FIRMWARE to the ASCA processor board. Follow the individual manufacturer's instructions for Ethernet adapter installation and setup.

2. Install the Solar Winds 2000 Standard Edition Program from the CD-ROM on the laptop computer per the example procedure in Appendix B.
3. Copy the two script files from the CD (SCRIPT.*) to the ASPECT folder of the ProComm program on the laptop computer (usually C:\Program Files\ProComm Plus\Aspect). Copy the META Key file from the CD (Flash CPU.key) to the ProComm folder on the laptop computer (usually C:\Program Files\ProComm Plus).
4. Copy the NEW ASOS FIRMWARE (asos0800.hex) from the drive to the hard drive (C:\) on the laptop computer. C:\asos0800.hex is the designated file name in the ProComm Script file that loads the FIRMWARE to the ASCA processor board.
5. From the desktop:
   a. Select **START>>Programs>>ProComm Plus>>Data Terminal**.
   b. Select **OPTIONS>>META Key Editor**.
   c. Select **OPEN** and choose **FLASH CPU.key** as the META Key file.
   d. Select **OPEN** and then select **OK.** If the META Keys do not display at the bottom of the ProComm Screen(*LOOK for "SW_TFTP", "Memory 0", "VERIFY 0"*) select **VIEW** and **META Keys** from the pull down menu. This allows a technician to execute steps in the procedure quickly and without errors.

NOTE: "SW-TFTP" is the executable file for the Solar Winds 2000 Standard Edition Program. (*C:\Program Files\SolarWinds\Standard Edition\TFTP-Server.exe*).

"**Memory 0**" is a direct command to the ASCA processor, instructing the software to fill the memory between hexadecimal addresses f0800000 and f0b00000 with zeros (0), effectively clearing the battery backed NVRAM. (*fm<space>f0800000..f0b00000<space>0<enter>*).

"**VERIFY 0**" is also a direct command to the ASCA processor, instructing the software to display the first memory block and is a good indicator that the entire memory is cleared. All memory locations should be "0." (*dm<space>f0800000<enter>*).

e. *Select **Options>>System Options>> Modem Connection>>Current Modem/ Connection = direct connect-Com1**.

f. *Select **Modem/Connection Properties** and set the **Port Settings** as follows:

Bits per second:	**9600**
Data bits:	**8**
Parity:	**None**
Stop bits:	**1**
Flow control:	**None**

g. To EXIT the setup select **OK.**

PART 2 – BEFORE INSTALLATION OF ASCA PROCESSOR FIRMWARE UPGRADE

1. Call the ASOS Operations and Monitoring Center (AOMC) at 1-800-242-8194 and provide notification on which ASOS you will be installing the ASCA Processor FIRMWARE Upgrade. Confirm with the AOMC the site-specific data base is available, and upload the current configuration before installing the ASCA Processor FIRMWARE Upgrade.
2. Get approval of the responsible MIC/OIC/Observer before starting installation. Installation of the ASCA Processor FIRMWARE Upgrade may be performed on any day of the month if restrictions in steps 3 and 4 are satisfied.

3. Download the following data sets to the laptop using the direct command mode as outlined in Section 1.3.14.2, of the Site Technical Manual:

Data Set	File Naming Convention
5MIN	FMMDDdd.STA
OBS	HMMDDdd.STA
SYSLOG	SMMDDdd.STA
DAILY	DMMDDdd.STA
SHEF	YMMDDdd.STA
ARC5MIN*	ZMMDDdd.STA

MM = Month of data
DD = Beginning day of data
dd = End day of data
STA = 3 letter station identification (i.e., Witcha Falls, TX = SPS)
* = 1, 2, or 3 (file will not exist if archive data had not been previously saved).
Forward collected data to the responsible DAPM as soon as possible.

4. Do not start installation during inclement weather, precipitation, instrument flight rule conditions, or if any of those conditions are expected within 3 hours. The responsible MIC/OIC/Observer will define these meteorological conditions.

5. Do not begin the ASCA Processor FIRMWARE Upgrade installation at a time that will conflict with scheduled synoptic observations at 00, 03, 06, 09, 12, 15, 18, and 21Z. Although one and a half hours should be sufficient, allow two hours to complete installation and restart ASOS.

6. Immediately before beginning work at NWS staffed sites, the MIC/OIC/Observer will inform the tower and any other critical users that the ASOS will be turned off for the ASCA Processor FIRMWARE Upgrade. At an unstaffed site, the electronics technician (ET) will inform the tower using controller video displays (CVD) and OID to log off and shut down the displays to avoid problems.

7. Do not begin the installation process until immediately after an hourly observation has been transmitted. At NWS-staffed sites, normal backup observing procedures will be implemented.

8. Sites without a local OID (i.e., no. RS232 connected for the primary OID) must attach a terminal to the primary OID port of the SCA 1A9J19 before proceeding.

9. Use the following steps and upload the current system configuration to the AOMC.

CAUTION

Be sure and complete step d in the following procedure as soon as possible after step c. DO NOT upload the communications change made in step c to the AOMC.

a. Log on as TECH.

b. Key to the AOMC page (**REVUE-SITE-VERSN-AOMC**). Command an upload of all data files except VOICE AIRPORT NAME. Wait for all of the lines to change from "UPLOAD REQ" to "COMPLETE." When complete, key **Exit**.

NOTE: DO NOT disable the local OID in step c.

c. Key to the COMMS page **(REVUE-SITE-CONFG-COMMS**) and disable all hardware and communication ports. When complete, key **Exit**.

d. Key to the AOMC page (**REVUE-SITE-VERSN-AOMC**) and cancel the automatic update of the RS-232 comm started by the configuration changes made in step c. When complete, key **Exit**.

PART 3 – PROCEDURE FOR INSTALLING THE ASCA PROCESSOR FIRMWARE

NOTE: This procedure requires that the laptop computer have an **Ethernet port**.

1. Power-down the ACU.
2. Verify that only one CPU is on the system. If two CPUs are present, configure IAW ASOS Modification Note 73.
3. Verify that the “config” number on the back of the CPU ends with “C1.” The “C1" indicates the high temperature board used specifically in the SCA.
4. Record the serial number of the processor board and include it in the Engineering Management Reporting System (EMRS) report.
5. Power-up the ACU.
6. Connect the DB-9 to RJ-45 serial cable between COM1 on the laptop computer and the SERIAL (*upper*) connector on front of the ASCA processor board.
7. Connect the RJ-45 patch crossover (ethernet) cable to the ethernet adapter connector on the laptop computer and to the ETHERNET (*lower*) connector on front of the ASCA processor board.

8. Power on the laptop computer and from the Windows Desktop select **START>>Programs>>ProComm Plus>>Data Terminal**.

9. Verify that ProComm Plus is configured for "direct connect-Com1" and 9600 bits per second on the Quick Select Line (***View>>Quick Select Line***).

10. Select the **SW-TFTP** META Key in ProComm.

    (*OR from the Windows Desktop select **START>>Programs>>Solar Winds 2000 Standard Edition>>File Transfer>>TFTP Server**.*)

11. In the Solar Winds 2000 program window, verify that the desired FIRMWARE version (asos0800.hex) is in the "CURRENT" root directory(C:\) of the SolarWinds program, **File>>Configure>>TFTP Root Directory**. Verify the following:

    1. Under **File** >> **Configure**, ensure the program is pointing to the directory where the ASOS FIRMWARE was copied in Part 2, step 5. The file “asos0800.hex” displays in the file listings window.

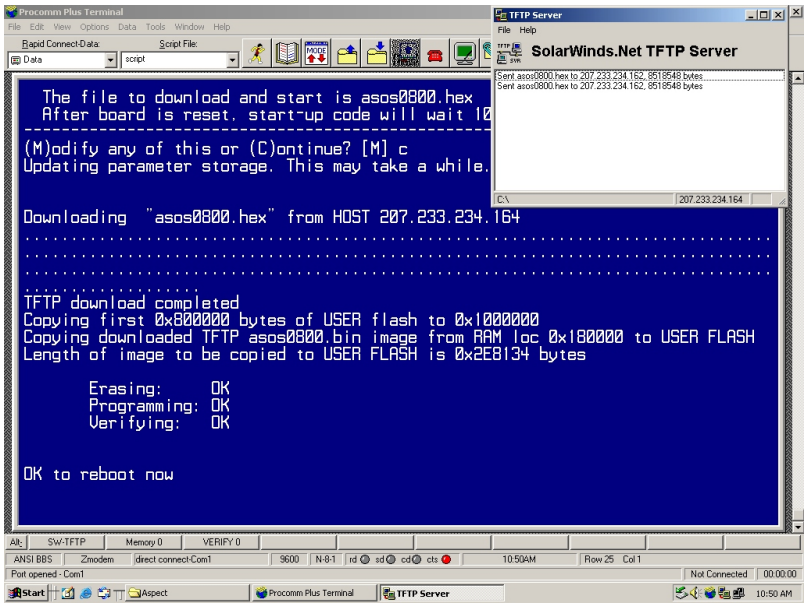
    2. Under the **Security** tab, check the box marked **Transmit and Receive files**, and select **OK.** DO NOT CLOSE the Solar Winds 2000 Standard Edition Program.

12. In the ProComm Plus Program window, select the appropriate "**script**" file (SCRIPT.WAX) from the *Pull Down Menu* and start the script. (*.WAX is the compiled version of a *.WAS file and the file extension will not be displayed)

13. The laptop computer display should indicate that the ASCA processor is being programmed. It may be necessary to RESET the ASCA processor to initiate the transfer. To do this, FLIP the switch on the ASCA processor board to the **RIGHT**.

14. When the programming stops, *O.K. to Reboot NOW* displays. This should take a few minutes. *(If this message does not display or a flashing " / " appears, the board may not be charged or has some other problem.*)

15. To verify that the ASCA processor is programmed with the new FIRMWARE, identify that the `Length of image to be copied to USER FLASH is 0x2E8134 bytes` for FIRMWARE version 2.7B-6 and note the response for *Verifying: is OK*. Newer versions of FIRMWARE have a different User Flash value. Notify ASOS Maintenance Branch (W/OPS12 @ 301-713-1833) if the User Flash is incorrect.



16. FLIP the switch on the ASCA processor to the **LEFT**. If the ASCA processor is **NEW** to the site, continue to steps 12 and 13. If the ASCA Processor has not been replaced and has been functioning acceptably with the previous version of FIRMWARE, continue to step 14.

17. *The ASCA Processor issues the prompt, pROBE+>. At this prompt, select the **Memory 0** META Key in ProComm.

    (*OR type* ***fm<space>f0800000..f0b00000<space>0<enter>***.)

    This command is instructing the software to fill the memory between hexadecimal addresses f0800000 and f0b00000 with zeros (0). The ASCA processor should now be programed and the battery backed NVRAM cleared, though no response is given.

18. **The ASCA processor again issues the prompt, pROBE+>. To verify that the command clearing the memory was successful, select the **VERIFY 0** META Key in ProComm

    (*OR type* ***dm<space>f0800000<enter>***.)

    This command instructs the software to show the first memory block and is a good indicator that the entire memory is cleared. All memory locations should be "0."

19. The ASCA processor issues the prompt, pROBE+>. Disconnect RJ-45 serial cable from the SERIAL (upper) connector and the RJ-45 patch crossover cable from ETHERNET (lower) connector of the ASCA processor board.

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*Indicates an optional step.

**Indicates an optional step.

20. FLIP the switch on the ASCA processor to the **RIGHT** to RESET. This completes the FIRMWARE upgrade.

2. – AFTER INSTALLATION OF FIRMWARE UPGRADE

1. Return to the OID and perform the following:
    1. Sign on as technician.
    2. Download of the DCP application software should occur automatically. If not, download the DCP application software using (**MAINT-PROC-DCP**) **Hard Reset**. At the top of the screen, look for "% DOWNLOADED is displayed." Wait for the DCP download to complete. Press **Exit**.
    3. After DOWNLOAD is complete proceed to the software version page (**REVUE-SITE-VERSN-SW**) and verify the proper versions for all system software. (It may take 5-10 minutes for the information to be returned from the DCP.)

ACU	CPU	A PSOS OS	EPROM	2.5	04/19/01
MEMORY	ACU	APPLICATION	EPROM	2.7B	08/15/03
MEMORY	DCP	APPLICATION	EPROM	2.7B	08/15/03
	DCP-1	CPU A BOOT	EPROM	1.90	11/03/97
MEMORY	DCP	APPLICATION	RAM	2.7B	08/15/03

    4. Press **Exit**.
2. After the modification has been completed, clear any maintenance flags that occur as a result of the restart.

NOTE: The operator **must** turn on report processing with this version of software.

3. Proceed to the report processing control page (**REVUE-SENSR-STAT-PROC**). If applicable to the site, turn on **Report Processing** for ALDARS. If a single-site lightning detection sensor is installed, turn on **Report Processing** for thunderstorm.
4. Turn on report processing for each sensor. Press **Exit**.
5. When ASOS is restarted at unstaffed sites, call to inform towers using CVDs and OIDs to turn on their displays. (At staffed sites, the MIC/OIC/Observer will call the tower.)
6. If on-site, NWS-staff provides backup while the installation is underway. No special observation is needed when ASOS is restarted.
7. If there is no backup at a site and a record observation was missed during the installation, a special observation must be taken when ASOS is restarted. The ET should sign on the

system as an observer and transmit a special observation from the generate special page (**GENOB-SPEC-XMIT**).

8. Logoff the system and leave ASOS running.

NOTE: The observer must sign off before the 5-minute edit time is up.

9. Inform the office staff that ASOS is again operational. If less than 25 minutes remain until the next hourly observation, augmentation of the ceiling may be required. Augmenting several elements may be necessary (or even the entire observation). The chart below indicates how long it takes after a startup for ASOS to report each observation element automatically.

Times Needed for Elements to be Reported Automatically:

	Minimum	Maximum
Pressure 60 seconds	10 minutes	
Precipitation Amount	60 seconds	*
Wind direction	2 minutes	7 minutes
Wind speed	2 minutes	7 minutes
Precipitation Type	2 minutes	*
Temperature	5 minutes	10 minutes
Dew Point	5 minutes	10 minutes
Visibility 10 minutes	15 minutes	
Obstruction to Visibility	10 minutes	*
Ceiling . 30 minutes	35 minutes	

* Maximum time not applicable since phenomena may not be present. Minimum time applies if phenomena are present.

10. Verify the ASOS transmitted an hourly observation. Call the AOMC at 1-800-242-8194 and inform the operator of:
    1. Your location.
    2. The installation of FIRMWARE version 2.7B-6 has been completed.
    3. The ASOS is operational.
11. Sign on the system as a technician and enter in the SYSLOG that maintenance has been completed (**MAINT-ACT-FMK**). Enter the FMK number as **MOD 80**. Press **Enter**. On the second line of the screen, verify that only Mod MOD 80 is displayed. Complete by entering **Y** in the [Y/N] area if only MOD 80 is displayed.
12. Check the SYSLOG and verify the FMK message. Enter a comment in the SYSLOG stating the new ASCA processor FIRMWARE version 2.7B-6 has been installed.
13. Before logging off from the OID, proceed to the upload page (**SITE-VERSN-AOMC-UP-LD**). This commands an upload of the site configuration files to the AOMC and ensures that both parties have the same set of data files.

NOTE: If the site configuration files are not uploaded to the AOMC before the technician leaves the site, the data on file at AOMC will not match the new site configuration.

14. At an expansion site with an air traffic control tower (ATCT), the ET will contact the ATCT and supply information on the following:
    1. The ASOS maintenance has been completed.
    2. The ASOS has been restored to service.
    3. The ATCT CVDs, OIDs, and TRACON displays need to be turned on.

3. – REPORTING MAINTENANCE

Target date for completion of this maintenance is 30 days after the receipt of the parts. Report the completed modification using the EMRS according to the instructions in the NWS Instruction 30-2104, Maintenance Documentation, Part 4, Appendix D. Include the following information on the report:

a. Block 7: **ASCA**
b. Block 8: ASCA serial number
c. Block 13: Processor Board ASN, Processor Board Serial Numbers (Old and New)
c. Block 17a: **80**

A sample EMRS report is provided as attachment A.

? Mark S. Paese
Signature Not Verified

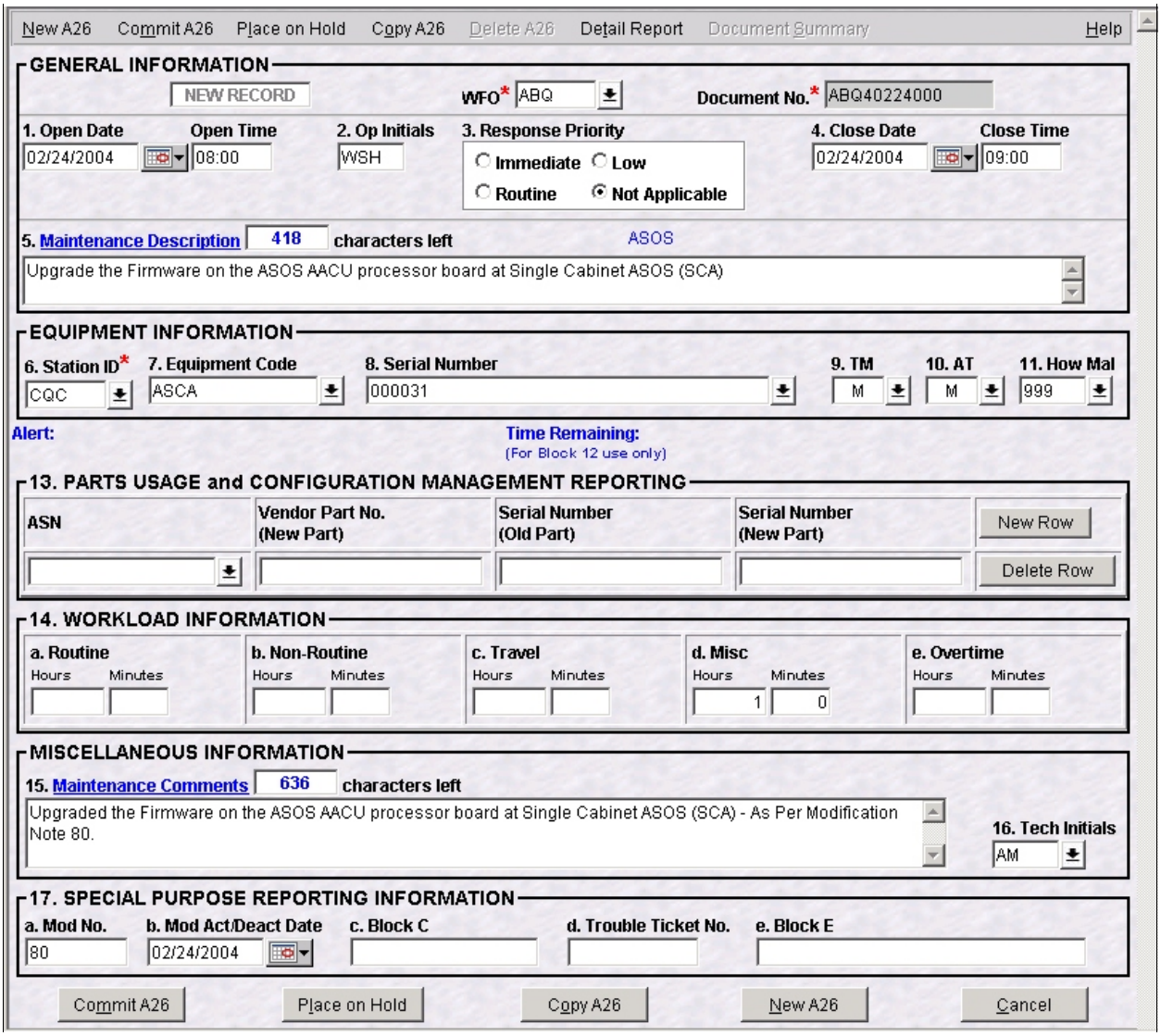
Digitally signed by Mark S. Paese
DN: cn=Mark S. Paese, o=DOC/NOAA/NWS, c=US
Date: 2004.03.08 16:54:56 -05'00'

Mark S. Paese
Director, Maintenance, Logistics and Acquisition Division

Attachment A - Sample EMRS Report

Appendix A Example Procedure for Internet Protocol Address Configuration for Microsoft Windows 2000 Professional
Appendix B Example Solar Winds TFTP Installation Procedure for Microsoft Windows 2000 Professional

Attachment A
Sample EMRS Report



New A26 Commit A26 Place on Hold Copy A26 Delete A26 Detail Report Document Summary Help

GENERAL INFORMATION

NEW RECORD WFO* ABQ Document No.* ABQ40224000

1. Open Date	Open Time	2. Op Initials	3. Response Priority	4. Close Date	Close Time
02/24/2004	08:00	WSH	○ Immediate ○ Low ○ Routine ◉ Not Applicable	02/24/2004	09:00

5. Maintenance Description 418 characters left ASOS

Upgrade the Firmware on the ASOS AACU processor board at Single Cabinet ASOS (SCA)

EQUIPMENT INFORMATION

6. Station ID*	7. Equipment Code	8. Serial Number	9. TM	10. AT	11. How Mal
CQC	ASCA	000031	M	M	999

Alert: Time Remaining: (For Block 12 use only)

13. PARTS USAGE and CONFIGURATION MANAGEMENT REPORTING

ASN	Vendor Part No. (New Part)	Serial Number (Old Part)	Serial Number (New Part)	New Row / Delete Row

14. WORKLOAD INFORMATION

a. Routine		b. Non-Routine		c. Travel		d. Misc		e. Overtime	
Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes	Hours	Minutes
						1	0		

MISCELLANEOUS INFORMATION

15. Maintenance Comments 636 characters left

Upgraded the Firmware on the ASOS AACU processor board at Single Cabinet ASOS (SCA) - As Per Modification Note 80.

16. Tech Initials AM

17. SPECIAL PURPOSE REPORTING INFORMATION

a. Mod No.	b. Mod Act/Deact Date	c. Block C	d. Trouble Ticket No.	e. Block E
80	02/24/2004			

Commit A26 Place on Hold Copy A26 New A26 Cancel

Appendix A
Example Procedure for Internet Protocol Address Configuration for Microsoft Windows 2000 Professional

This procedure requires that the Technician laptop computer have an **Ethernet Adapter**. This example procedure for configuring the Internet Protocol (TCP/IP) properties and address identification required for the ProComm script file to interface with the *Solar Winds 2000 Standard Edition Program* and upload the FIRMWARE to the ASCA processor board. Implementation in other Windows operating systems will be different. Follow the individual manufacturers instructions for ethernet adapter installation and setup.

PART A-1 CONFIGURING THE CORRECT TCP/IP ADDRESS IN THE WINDOWS OPERATING SYSTEM

1. From the desktop click **Start, Settings, Network and Dial-up-Connections** (see Figure A-1.1).

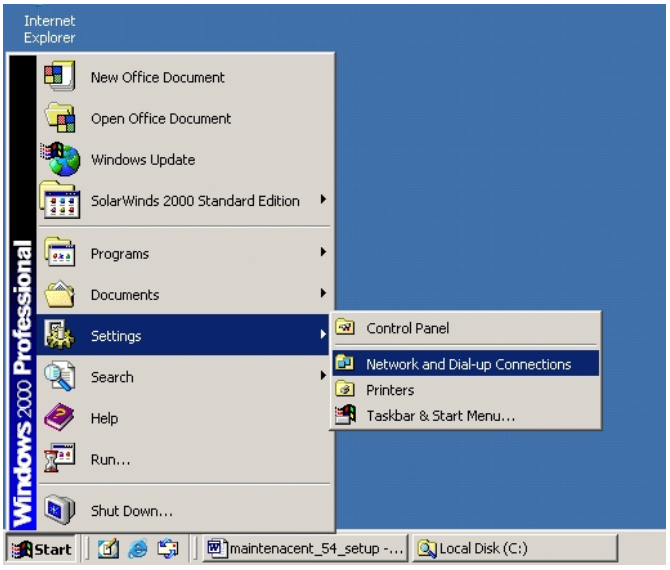


Figure A-1.1 Windows 2000 Professional Desktop

2. Double click the icon for the **Ethernet Adapters** (see Figure A-1.2). In the below example the adapter is manufactured by **Netgear** and is a 10 Mbps ethernet local area network interface card. The Flash upload is transmitted through this card to the ASCA processor.

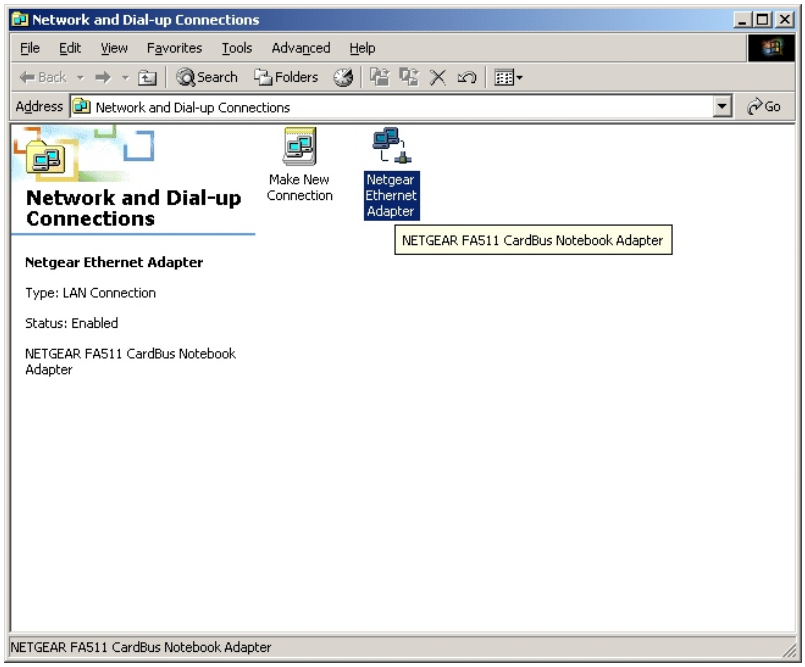


Figure A-1.2

3. Click the **Properties** button (see figure A-1.3).

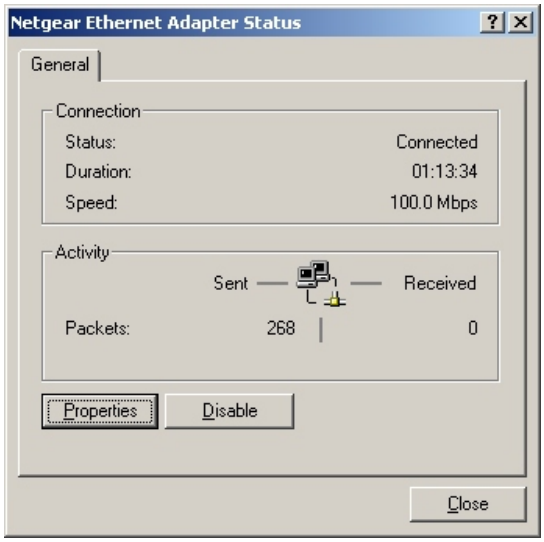


Figure A-1.3

4. Double click the icon **Internet Protocol (TCP/IP)** (see Figure A-1.4).

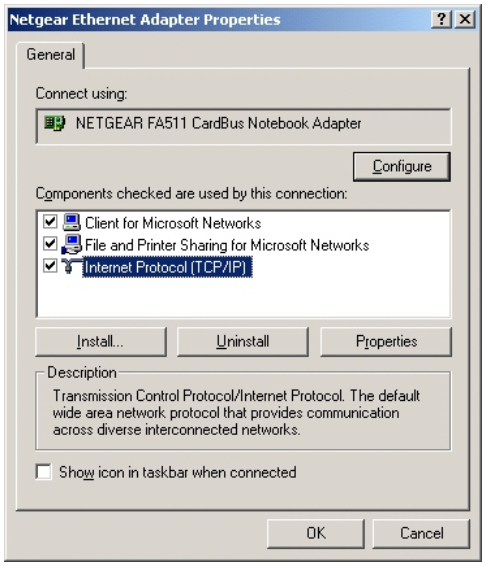


Figure A-1.4

5. Select **Use the following IP address** and type in the fields: **IP address, Subnet mask, and Default gateway** as shown in Figure A-1.5.

NOTE: If the laptop computer is used on a network you will need to note the existing IP address and repeat the following steps to return the laptop computer to its original configuration.

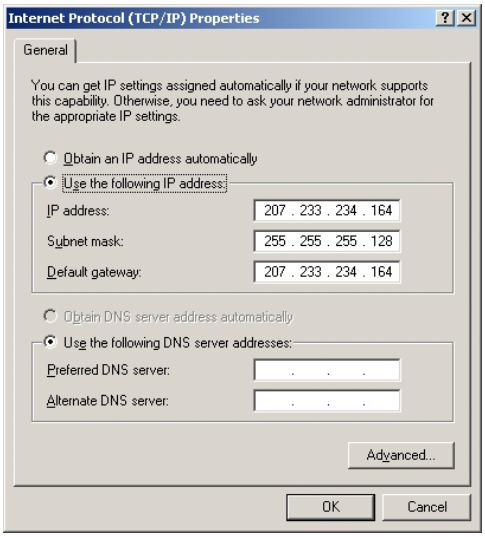


Figure A-1.5

6. Ensure the button is selected in the **Use the following DNS Server addresses** field. Leave the **Preferred DNS server:** address block empty. Leave the **Alternate DNS server:** field empty (see Figure A-1.5).

7. Select **OK**. The **Ethernet Adapter Properties** dialog box displays (see Figure A-1.6).

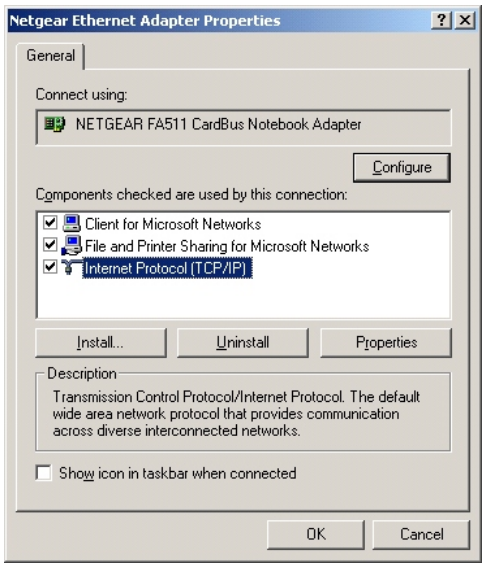


Figure A-1.6

8. Select **OK** and close the **Network and Dial-up Connections** dialog box. The Ethernet Network Interface card has been configured with the proper addressing. The ProComm script can now instruct the ASCA processor to upload the FIRMWARE from the correct IP address by interfacing with the Solar Winds 2000 Standard Edition Program.

Appendix B
Example Solar Winds TFTP Installation Procedure for Microsoft Windows 2000 Professional

PART B-1 ATTEMPT A QUICK INSTALL USING WINDOWS PLUG AND PLAY FUNCTIONALITY

1. Place the CD ROM named Solar Winds TFTP Server into the CD drive of the computer. On the desk top, double Select the icon **My Computer**.

2. Double-click the icon for the CD-ROM Drive. **Compact Disc (D:)** is the default name Windows gives the CD-ROM drive (see figure B-1.1). The contents of the D drive displays.

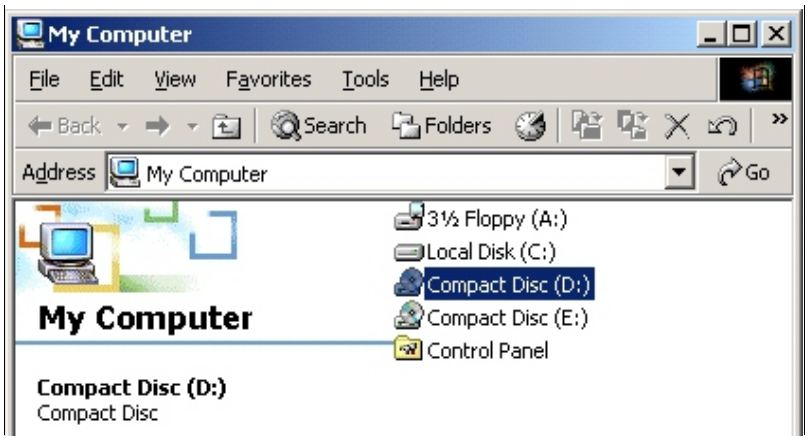


Figure B-1.1

3. Double-click the icon **Solar Winds-TFTP-Server** (see figure B-1.2). This initializes the Windows install wizard, guiding step by step through the installation procedure. Upon completion the computer screen should look like figure B-1.3.

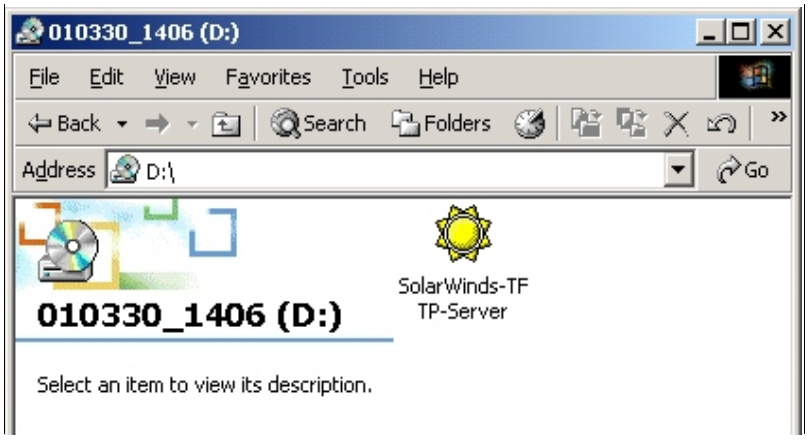


Figure B-1.2

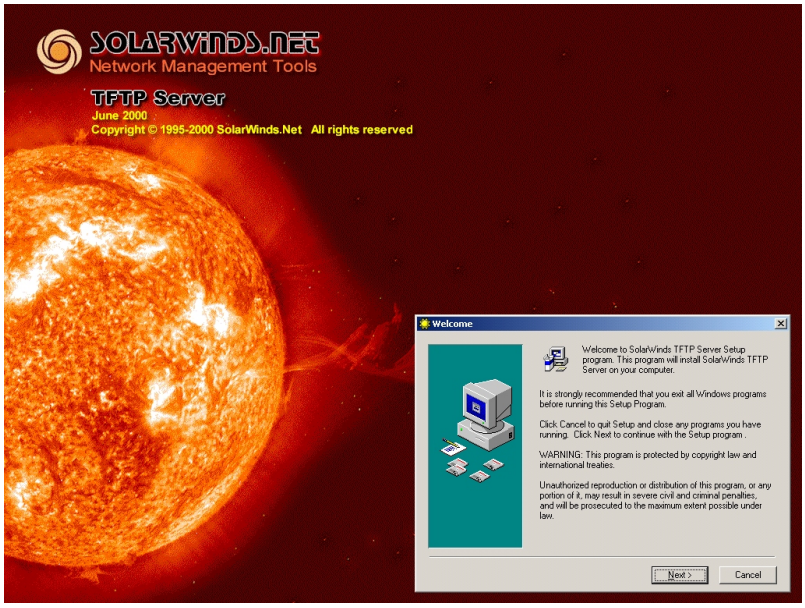


Figure B-1.3

4. Follow the instructions and then select **Next**.

5. Select the button named **Yes** to agree to the license (see figure B-1.4). The *Choose Destination Location* dialog box displays.

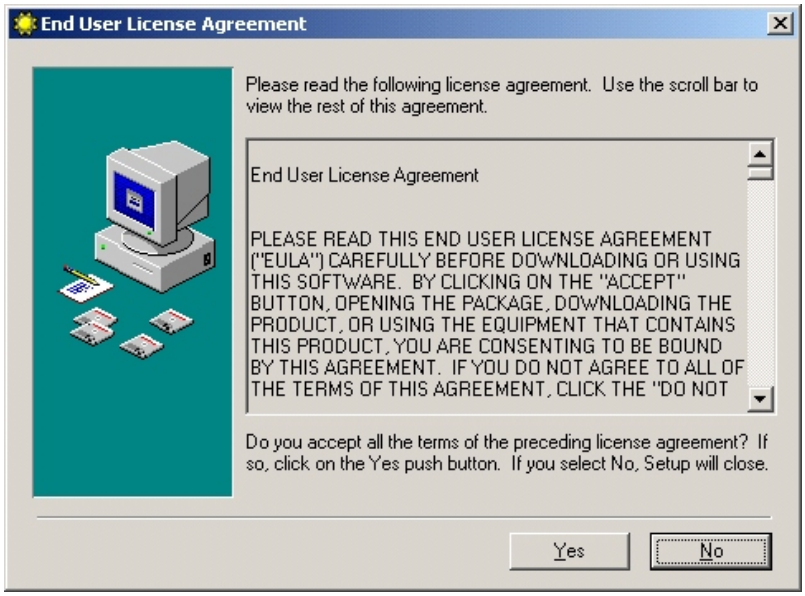


Figure B-1.4

6. Ensure the file in the *Destination Folder* dialog box is *C:\...\Solar Winds\Standard Edition* (the box with the *Browse* button) (see figure B-1.5). By default, Windows stores the software package in the *Program Files* folder located on the C drive. The default destination folder path is *C:\Program Files\Solar Winds\Standard Edition*. If the path and file name displayed matches figure B-1.5, select **Next**. Windows starts copying the files to the hard drive (see figure B-1.6).

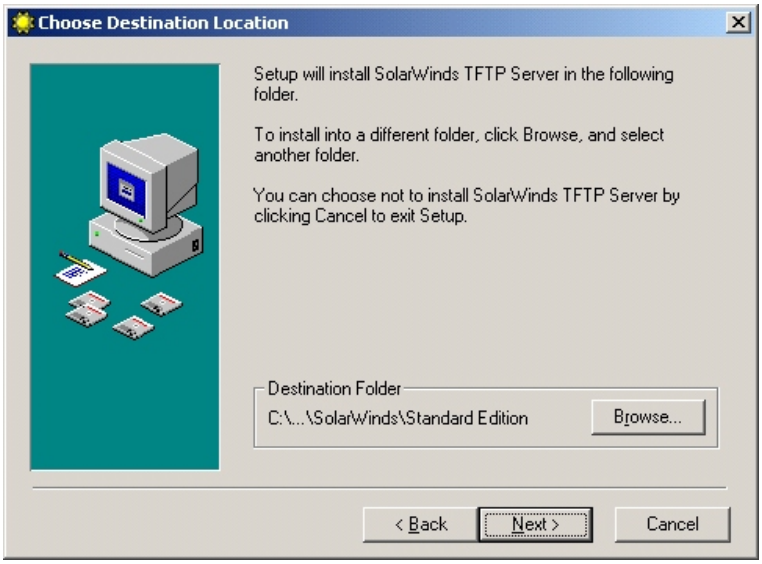


Figure B-1.5

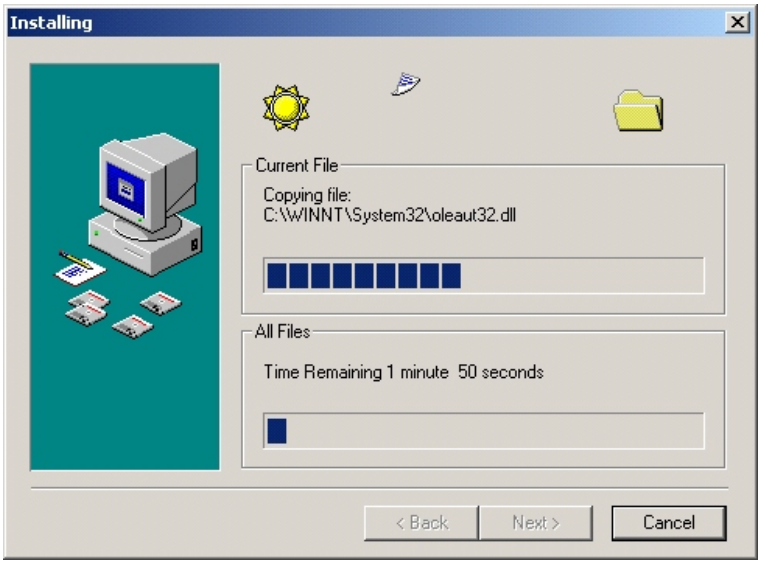


Figure B-1.6

7. Select **Finish** to complete the installation process.

PART B-2 Use the Windows Control Panel to Install Solar Winds TFTP Server Software

1. From the desk top Select **Start, Settings, Control Panel** (see figure B-2.1).

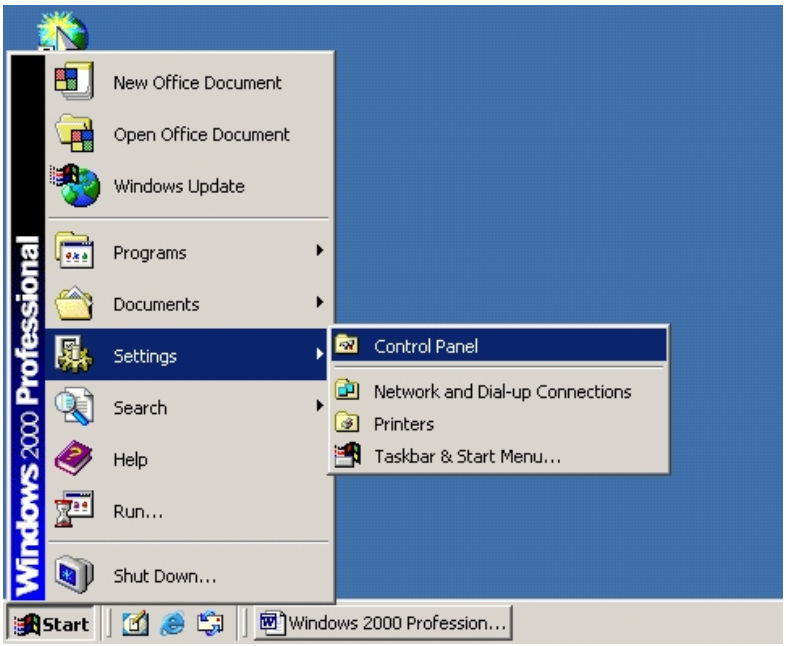


Figure B-2.1

2. Select **Add/Remove Programs** (see figure B-2.2).

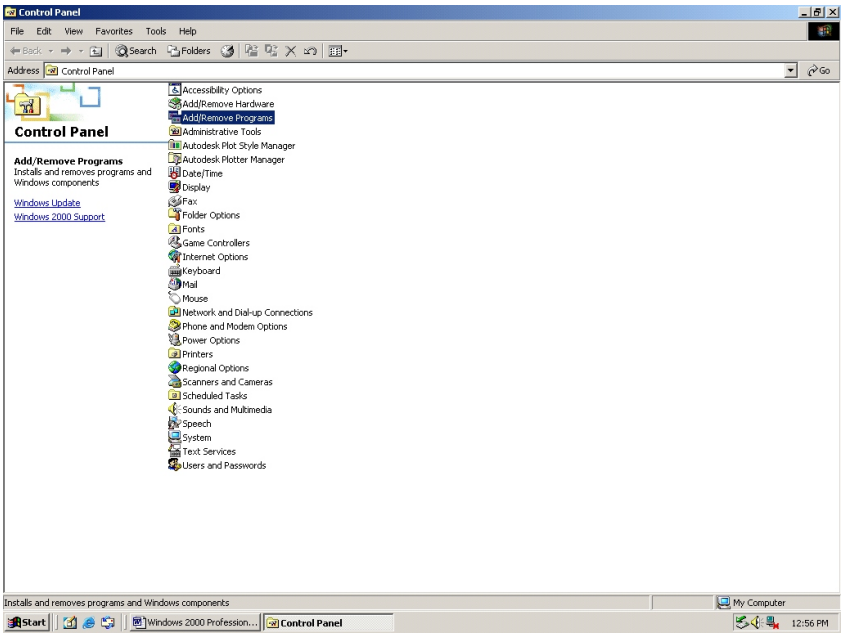


Figure B-2.2

3. Select **Add New Programs** (see figure B-2.3).

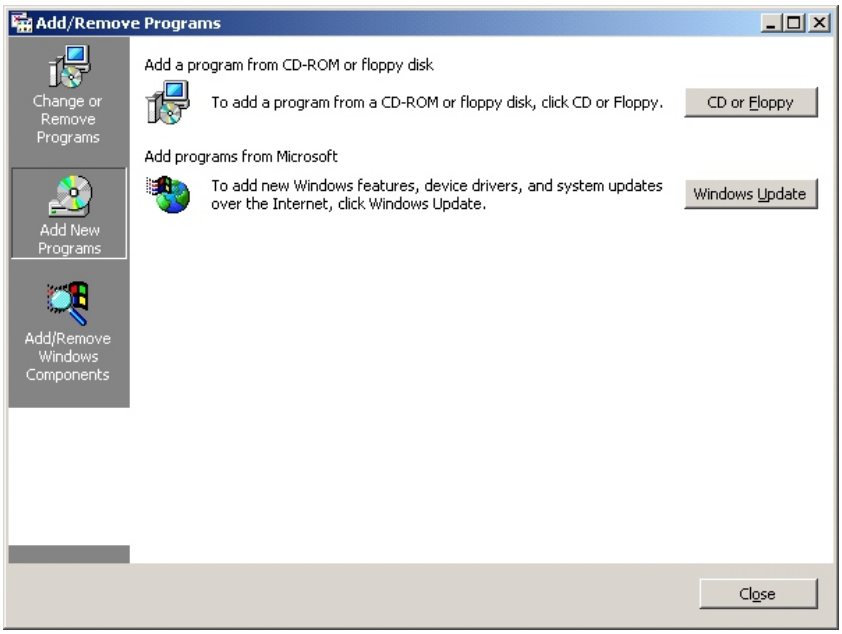


Figure B-2.3

4. Place the Solar Winds CD in the CD ROM drive and select the **CD or Floppy** button (see figure B-2.4).

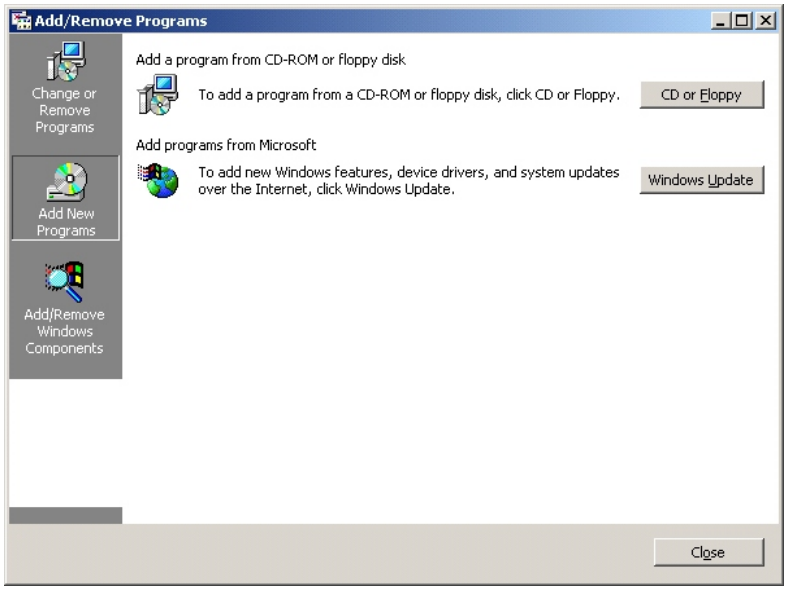


Figure B-2.4

5. Insert the CD, Solar Winds TFTP Server in the CD-ROM drive and select **Next** (see figure B-2.5). If Windows has trouble finding the installation file on the CR-ROM, a prompt displays with the following dialog box (see figure B-2.6).

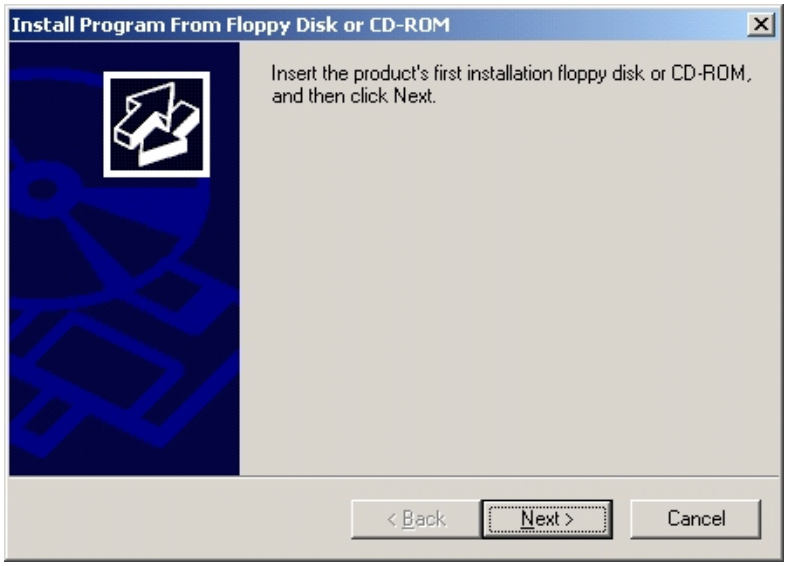


Figure A-2.5

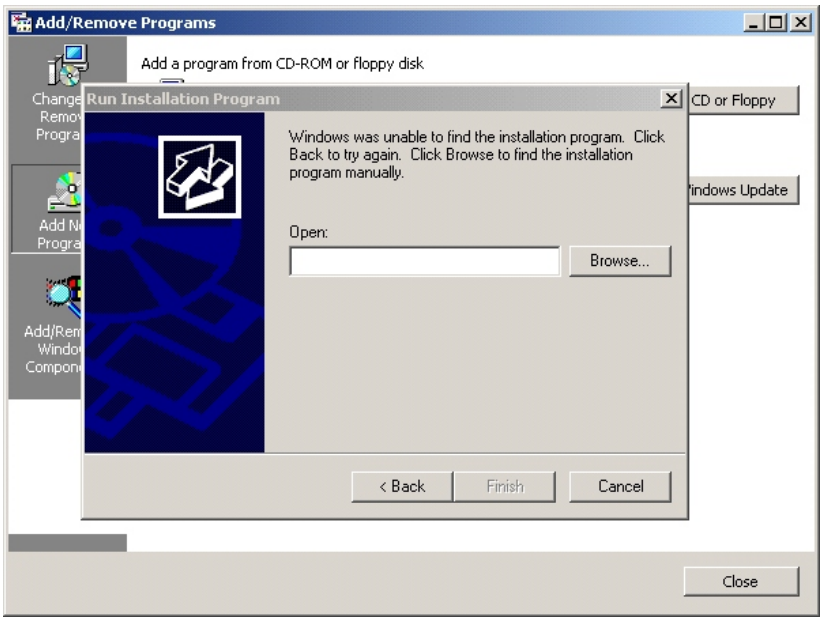


Figure A-2.6

6. Locate the installation program by selecting **Browse** in the **Run Installation Program** dialog box depicted in figure B-2.6. The *Browse* dialog box displays (see figure B-2.7).

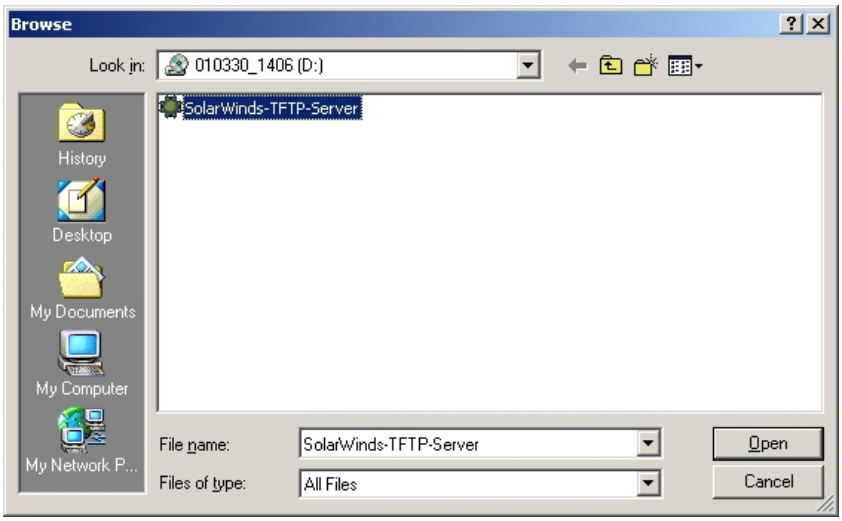


Figure B-2.7

7. Select the down arrow in the *Files of Type Box* and choose **All Files**. Make sure the *Look in: Box* is pointed to the CD-ROM drive.

8. Highlight the **Solar Winds-TFTP Server** icon and select **Open**. The *Run Installation Program* dialog box displays (see figure B-2.8).

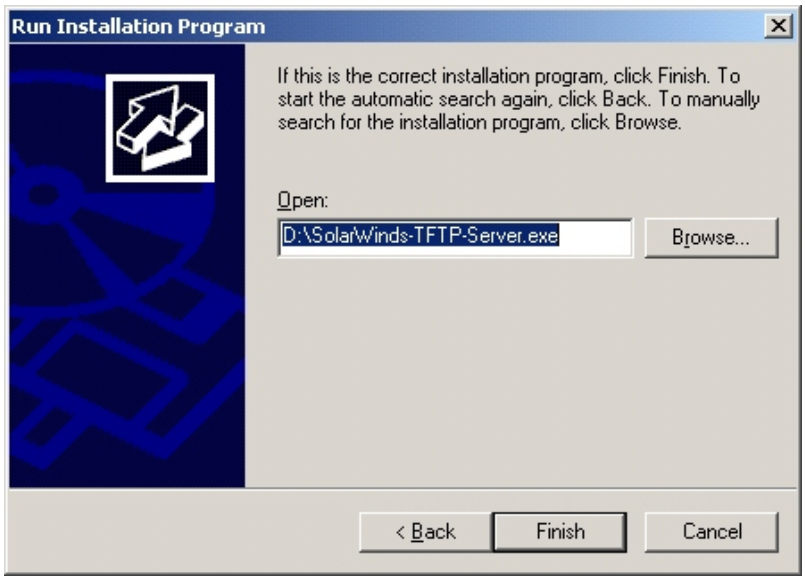


Figure B-2.8

9. Select **Finish** to start the installation. The installation Wizard displays (see figure B-2.9).

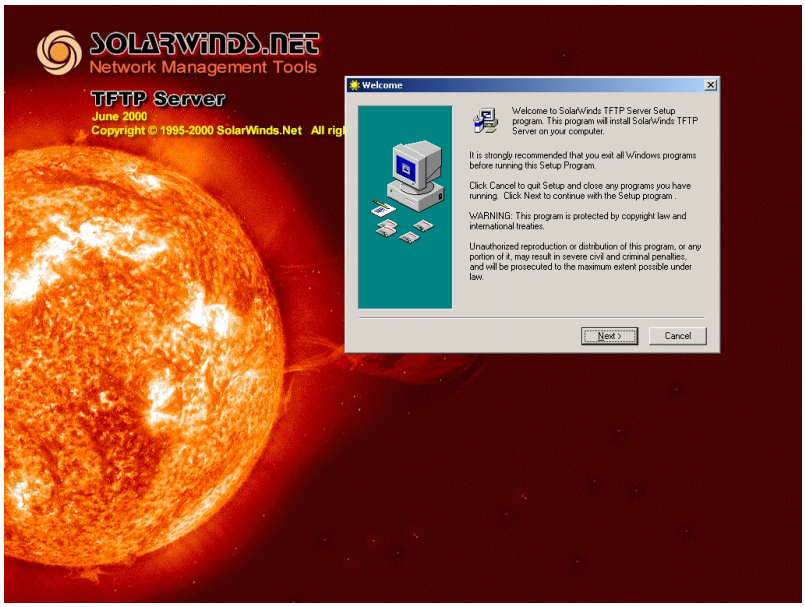


Figure B-2.9

10. Close out of all other applications, select **Next** and follow the on screen instructions.

11. Select **Yes** to agree to the license (see figure B-2.10). The *Choose Destination Location* dialog box displays.

Figure B-2.10

12. Ensure the file in the *Destination Folder* dialog box is **C:\...\Solar Winds\Standard Edition** (see figure B-2.11). By default, Windows stores the software package in the *Program Files* folder located on the C drive. The default destination folder path is *C:\Program Files\Solar Winds\Standard Edition*.

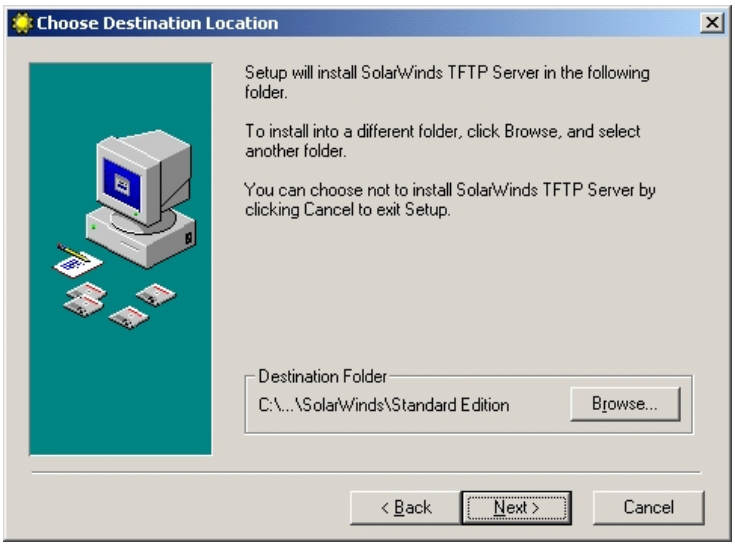


Figure A-2.11

13. To verify the proper path, Select **Browse**. The *Select Destination Directory* box (see figure B-2.12) displays.

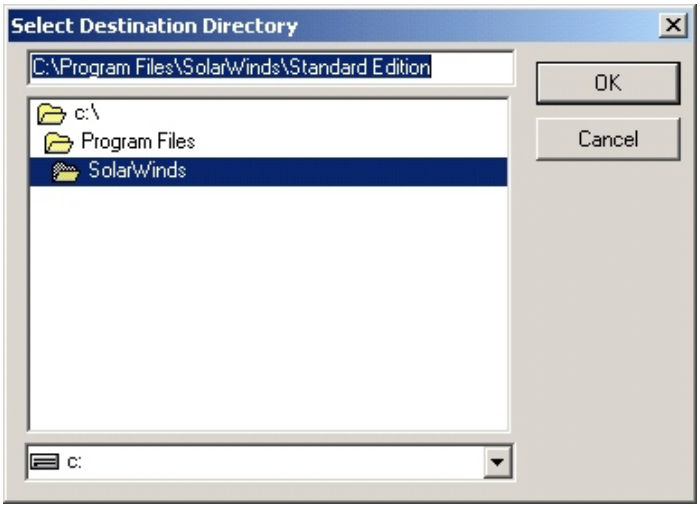


Figure B-2.12

14. Select the **SolarWinds** icon and Select **OK**.

15. The *Choose Destination Location* dialog window displays again (figure B-2.11). The correct path is verified. The **Destination Folder** depicted in figure B-2.11 is **C:\...\Solarwinds\Standard Edition**. This path places three periods in the place of the file named **Program Files**. If the path and file name displayed matches figure B-2.11, select **Next**. The software is loaded to the hard drive and the *Installing* dialog box displays (see figure B-2.13).

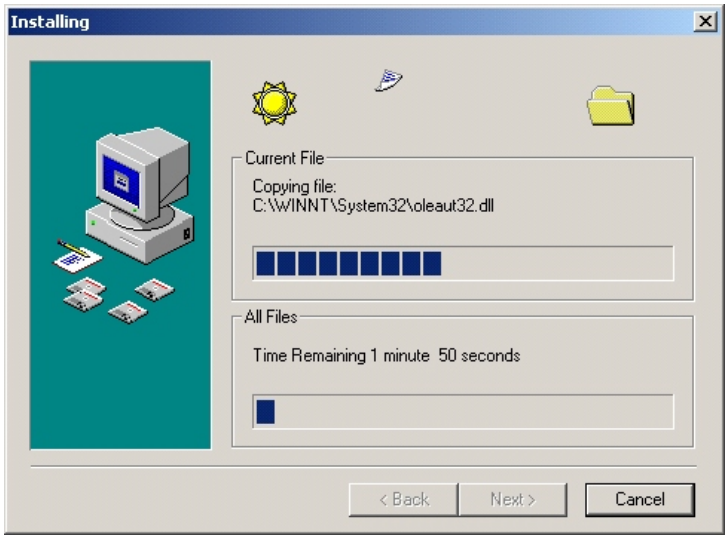


Figure B-2.13

16. When Windows is done loading the file, Select **Finish** to complete the download procedure. Solar Winds TFTP Server has been successfully installed on your Windows 2000 Professional platform.